

ABSTRACT OF THE DISCLOSURE

A composite reinforcing rod is formed by providing a reinforcing material supply of fiber strands rovings; a resin supply bath, and a puller for pulling the resin-impregnated reinforcing material through the resin bath. A hot compression (or autoclave) apparatus includes two half autoclave molds, which can be arranged in a reciprocating die autoclave or a tractor die autoclave process. A mandrel or plastics tubing core may be used to form a hollow shape of the composite materials to get an external threaded composite tubing. The two autoclave molds have an internal thread and clamp to form the threaded section in the outer of the resin-impregnated reinforcing material. The molds press and squeeze the resin out of the impregnated fibers to the mold internal surfaces, and push the outer fibers longitudinal roving fibers toward the crest of the thread of the molds so that the thread when formed is reinforced by fibers extending into the core of the rod. The die includes two die parts each forming a part of the hollow cylindrical interior and including mating surfaces on either side. The die parts open in a direction at right angles to a plane joining the edges of the die parts at an angle to the plane of the mating surfaces and then close by moving in a first direction to close the mating surfaces and then in a second direction along the mating surfaces to sweep un-set resin from the surfaces into the hollow interior.